Amendments to the Claims

Please amend claims 1, 5, 6, and 10-12. Please cancel claim 16. The currently pending

claims after amendment are listed below.

1   1.   (Currently Amended)   A method for database query optimization in a computer system

2   having a plurality of central processors, comprising the steps of:

3   defining a plurality of logical partitions of said computer system, each logical partition

4   having a respective processor resource assignment, wherein each task executing in said computer

5   system is assigned to a respective one of said logical partitions and wherein the definition of a

6   plurality of logical partitions may be dynamically altered;

7   defining a database query;

8   constructing a first search strategy for said database query, said first search strategy being

9   dependent on a first processor resource assignment at the time said step of constructing a first

10   search strategy is performed;

11   invoking said database query for execution in a first logical partition, said invoking step

12   being performed after said step of constructing a first search strategy;

13   automatically comparing a second processor resource assignment to said first processor

14   resource assignment, said second processor resource assignment being associated with said first

15   logical partition at the time said invoking said database query for execution step is performed; and

16   automatically constructing a second search strategy dependent on said second processor

17   resource assignment, said step of automatically constructing a second search strategy being

18   performed dependent on the results of said comparing step.

1   2.   (Original)   The method for database query optimization of claim 1, wherein said respective

2   processor resource assignment of each partition comprises a respective number of virtual

3   processors of each partition, said respective number being an integer.

Docket No.:   ROC920010160US1
Serial No.:   10/001,667

1   3.   (Original) The method for database query optimization of claim 2, wherein said step of

2   defining a plurality of logical partitions comprises defining at least one set of processors which is

3   shared by a set of said logical partitions, said set of said logical partitions containing at least two

4   partitions, said respective processor resource assignment of each partition of said set of partitions

5   including said set of processors.

1   4.   (Original) The method for database query optimization of claim 1, further comprising the

2   step of:

3   saving said first search strategy in a persistent object for later execution, said saving step

4   including saving said first processor resource assignment in said object.

1   5.   (Currently Amended) ~~The~~ A method for database query optimization ~~of claim 4~~ in a

2   computer system having a plurality of central processors, ~~further~~ comprising the steps of:

3   defining a plurality of logical partitions of said computer system, each logical partition

4   having a respective processor resource assignment, wherein each task executing in said computer

5   system is assigned to a respective one of said logical partitions and wherein the definition of a

6   plurality of logical partitions may be dynamically altered;

7   defining a database query;

8   constructing a first search strategy for said database query, said first search strategy being

9   dependent on a first processor resource assignment at the time said step of constructing a first

10   search strategy is performed;

11   invoking said database query for execution in a first logical partition, said invoking step

12   being performed after said step of constructing a first search strategy;

13   comparing a second processor resource assignment to said first processor resource

14   assignment, said second processor resource assignment being associated with said first logical

15   partition at the time said invoking said database query for execution step is performed;

16   automatically constructing a second search strategy dependent on said second processor

17   resource assignment, said step of automatically constructing a second search strategy being

18   performed dependent on the results of said comparing step;

19   saving said first search strategy in a persistent object for later execution, said saving step

20   including saving said first processor resource assignment in said object;

21   invoking a previously saved search strategy for execution in a second logical partition, said

22   second logical partition being different from said first logical partition;

23   identifying a third processor resource assignment associated with said second logical

24   partition;

25   comparing said third processor resource assignment to said first processor resource

26   assignment; and

27   automatically constructing a third search strategy for execution of said database query

28   depending on the results of said comparing step.

1   6.   (Currently Amended)   ~~The~~ A method for database query optimization ~~of claim 1~~ in a

2   computer system having a plurality of central processors, ~~further~~ comprising the steps of:

3   defining a plurality of logical partitions of said computer system, each logical partition

4   having a respective processor resource assignment, wherein each task executing in said computer

5   system is assigned to a respective one of said logical partitions and wherein the definition of a

6   plurality of logical partitions may be dynamically altered;

7   defining a database query;

8   constructing a first search strategy for said database query, said first search strategy being

9   dependent on a first processor resource assignment at the time said step of constructing a first

10   search strategy is performed;

11   invoking said database query for execution in a first logical partition, said invoking step

12   being performed after said step of constructing a first search strategy;

13   comparing a second processor resource assignment to said first processor resource

14   assignment, said second processor resource assignment being associated with said first logical

15   partition at the time said invoking said database query for execution step is performed;

16   determining whether a user has specified that automatic construction of another search

17   strategy be disabled;

18   automatically constructing a second search strategy dependent on said second processor

19   resource assignment, said step of automatically constructing a second search strategy being

20   performed dependent on the results of said comparing step, wherein said step of automatically

21   constructing a second search strategy dependent on said second processor resource assignment is

22   performed only if said determining step determines that a user has not specified that automatic

23   construction of another search strategy be disabled.

1   7.   (Original)   A program product for database query optimization in a computer system

2   having a plurality of central processors and a dynamic logical partitioning mechanism, said

3   dynamic logical partitioning mechanism supporting a plurality of defined logical partitions of said

4   computer system, each logical partition having a respective processor resource assignment,

5   wherein each task executing in said computer system is assigned to a respective one of said

6   logical partitions and wherein the definition of a plurality of logical partitions may be dynamically

7   altered, said program product comprising a plurality of processor executable instructions recorded

8   on signal-bearing media, wherein said instructions, when executed by at least one central

9   processor of said computer system, cause the system to perform the steps of:

10   receiving a definition of a database query;

11   constructing a first search strategy for said database query, said first search strategy being

12   dependent on a first processor resource assignment at the time said step of constructing a first

13   search strategy is performed;

14   invoking said database query for execution in a first logical partition, said invoking step

15   being performed after said step of constructing a first search strategy;

16   comparing a second processor resource assignment to said first processor resource

17   assignment, said second processor resource assignment being associated with said first logical

18   partition at the time said invoking said database query for execution step is performed; and

19   automatically constructing a second search strategy dependent on said second processor

20   resource assignment, said step of automatically constructing a second search strategy being

21   performed dependent on the results of said comparing step.

1   8.   (Original)   The program product for database query optimization of claim 7, wherein said

2   respective processor resource assignment of each partition comprises a respective number of

3   virtual processors of each partition, said respective number being an integer.

1   9.   (Original) The program product for database query optimization of claim 7, wherein said

2   instructions further cause said computer system to perform the step of:

3   saving said first search strategy in a persistent object for later execution, said saving step

4   including saving said first processor resource assignment in said object.

1   10.   (Currently Amended) ~~The~~ A program product for database query optimization ~~of claim 9~~

2   in a computer system having a plurality of central processors and a dynamic logical partitioning

3   mechanism, said dynamic logical partitioning mechanism supporting a plurality of defined logical

4   partitions of said computer system, each logical partition having a respective processor resource

5   assignment, wherein each task executing in said computer system is assigned to a respective one

6   of said logical partitions and wherein the definition of a plurality of logical partitions may be

7   dynamically altered, said program product comprising a plurality of processor executable

8   instructions recorded on signal-bearing media, wherein said instructions, when executed by at

9   least one central processor of said computer system, ~~further~~ cause said computer system to

10   perform the steps of:

11   receiving a definition of a database query;

12   constructing a first search strategy for said database query, said first search strategy being

13   dependent on a first processor resource assignment at the time said step of constructing a first

14   search strategy is performed;

15   invoking said database query for execution in a first logical partition, said invoking step

16   being performed after said step of constructing a first search strategy;

17   comparing a second processor resource assignment to said first processor resource

18   assignment, said second processor resource assignment being associated with said first logical

19   partition at the time said invoking said database query for execution step is performed;

20   automatically constructing a second search strategy dependent on said second processor

21   resource assignment, said step of automatically constructing a second search strategy being

22   performed dependent on the results of said comparing step;

Docket No.:   ROC920010160US1
Serial No.:   10/001,667

23   saving said first search strategy in a persistent object for later execution, said saving step

24   including saving said first processor resource assignment in said object;

25   invoking a previously saved search strategy for execution in a second logical partition, said

26   second logical partition being different from said first logical partition;

27   identifying a third processor resource assignment associated with said second logical

28   partition;

29   comparing said third processor resource assignment to said first processor resource

30   assignment; and

31   automatically constructing a third search strategy for execution of said database query

32   depending on the results of said comparing step.

1   11.   (Currently Amended)   ~~The~~ A program product for database query optimization ~~of claim 7~~

2   in a computer system having a plurality of central processors and a dynamic logical partitioning

3   mechanism, said dynamic logical partitioning mechanism supporting a plurality of defined logical

4   partitions of said computer system, each logical partition having a respective processor resource

5   assignment, wherein each task executing in said computer system is assigned to a respective one

6   of said logical partitions and wherein the definition of a plurality of logical partitions may be

7   dynamically altered, said program product comprising a plurality of processor executable

8   instructions recorded on signal-bearing media, wherein said instructions, when executed by at

9   least one central processor of said computer system, ~~further~~ cause said computer system to

10   perform the steps of:

11   receiving a definition of a database query;

12   constructing a first search strategy for said database query, said first search strategy being

13   dependent on a first processor resource assignment at the time said step of constructing a first

14   search strategy is performed;

15   invoking said database query for execution in a first logical partition, said invoking step

16   being performed after said step of constructing a first search strategy;

17   comparing a second processor resource assignment to said first processor resource

18   assignment, said second processor resource assignment being associated with said first logical

19   partition at the time said invoking said database query for execution step is performed;

20   determining whether a user has specified that automatic construction of another search

21   strategy be disabled;

22   automatically constructing a second search strategy dependent on said second processor

23   resource assignment, said step of automatically constructing a second search strategy being

24   performed dependent on the results of said comparing step, wherein said step of automatically

25   constructing a second search strategy dependent on said second processor resource assignment is

26   performed only if said determining step determines that a user has not specified that automatic

27   construction of another search strategy be disabled.

Docket No.:   ROC920010160US1
Serial No.:   10/001,667

28   12.   (Currently Amended)   A computer system, comprising:

29   a plurality of central processing units;

30   a memory;

31   a logical partitioning mechanism supporting a plurality of defined logical partitions of said

32   computer system, each logical partition having a respective processor resource assignment,

33   wherein each task executing in said computer system is assigned to a respective one of said

34   logical partitions and wherein the definition of said logical partitions may be dynamically altered;

35   a database;

36   a database management system for managing said database, wherein said database

37   management system:

38   (a) performs query optimization of a database query for said database to produce a

39   first search strategy, said first search strategy being dependent on a first processor resource

40   assignment;

41   (b) responsive to invoking said first query search strategy for execution, compares

42   said first processor resource assignment with a second processor resource assignment

43   associated with a logical partition of execution at the time said first search strategy is

44   invoked for execution; and

45   (c) depending on the results of said comparison performed in (b), automatically

46   constructs a second search strategy dependent on said second processor resource

47   assignment;

48   wherein said database management system further determines whether a user has specified that (c)

49   be disabled, and disables (c) responsive to determining that a user has so specified.

1   13.   (Original) The computer system of claim 12, wherein said respective processor resource

2   assignment of each partition comprises a respective number of virtual processors of each partition,

3   said respective number being an integer.

1   14.   (Original)   The computer system of claim 13, wherein said logical partitioning mechanism

2   supports the definition of at least one set of processors which is shared by a set of said logical

3   partitions, said set of said logical partitions containing at least two partitions, said respective

4   processor resource assignment of each partition of said set of partitions including said set of

5   processors.

1   15.   (Original)   The computer system of claim 12, wherein said database management system

2   saves said first search strategy in a persistent object for later execution, said persistent object

3   including said first processor resource assignment.

     16.   (Cancelled)

Docket No.:   ROC920010160US1
Serial No.:   10/001,667